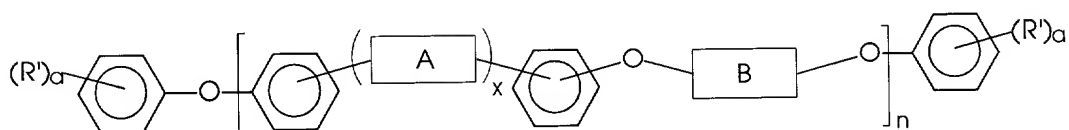
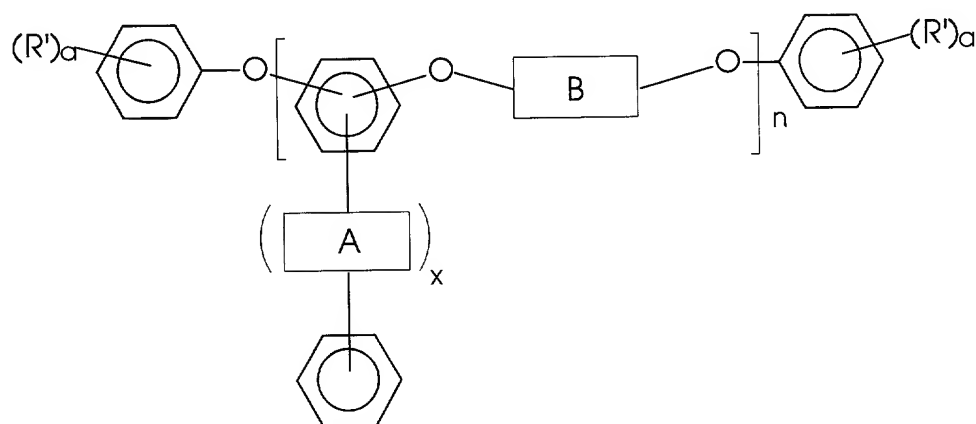


**WHAT IS CLAIMED IS:**

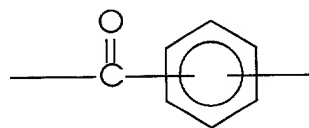
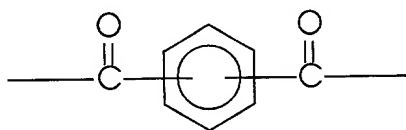
1. A process for preparing a polymer of the formula

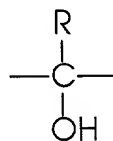
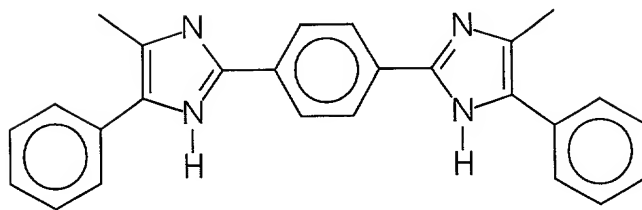
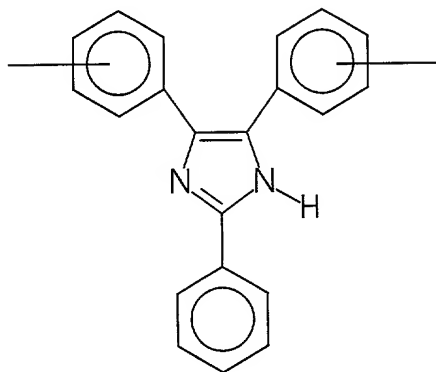
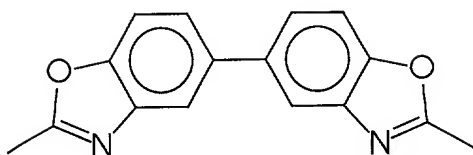
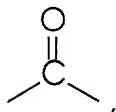
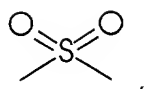


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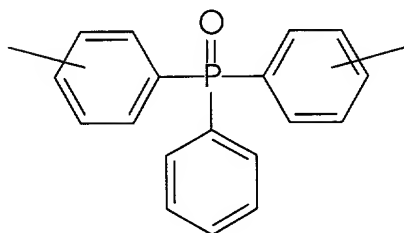
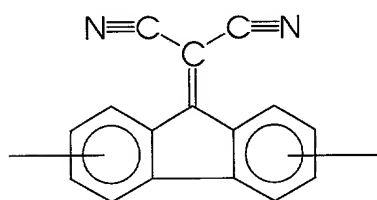
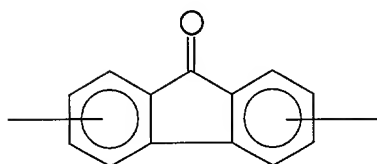
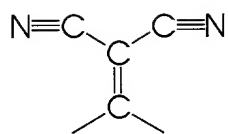


wherein x is an integer of 0 or 1, a is an integer of from 1 to 5, R' is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, an aryloxy group, an arylalkyloxy group, an alkylaryloxy group, a polyalkyleneoxy group, or a mixture thereof, A is

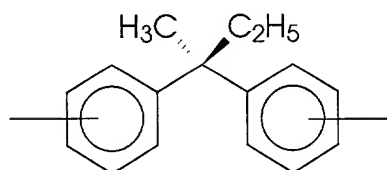
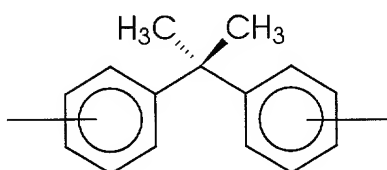
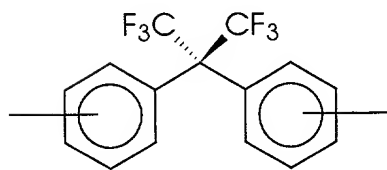


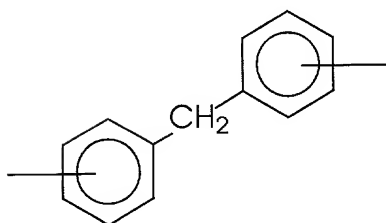
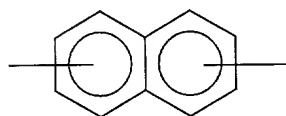
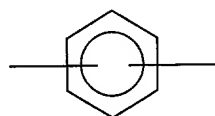
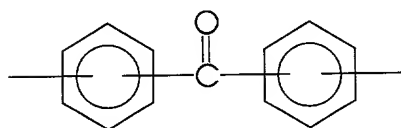
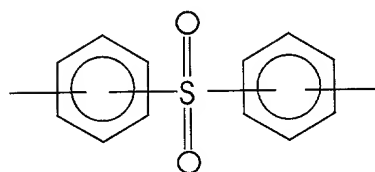
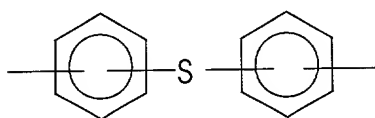
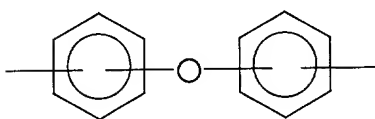
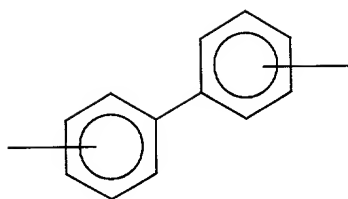


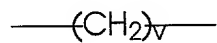
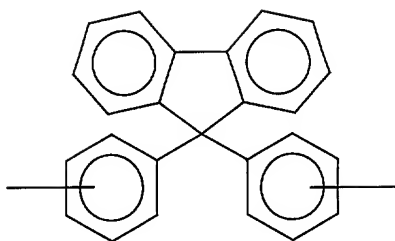
wherein R is a hydrogen atom, an alkyl group, an aryl group, or mixtures thereof,



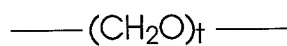
or mixtures thereof, B is



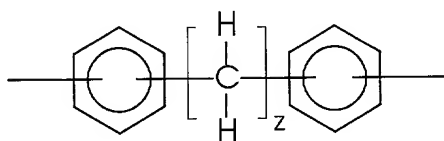




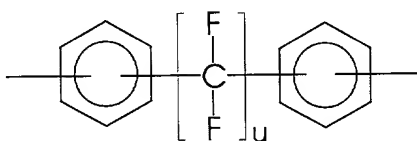
wherein v is an integer of from 1 to about 20,



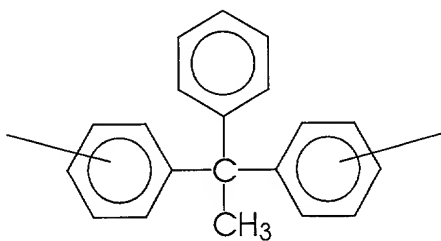
wherein t is an integer of from 1 to about 20,

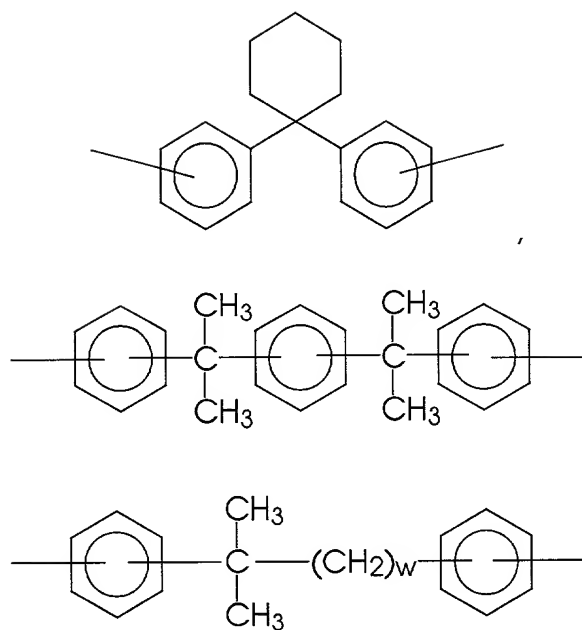


wherein z is an integer of from 2 to about 20,

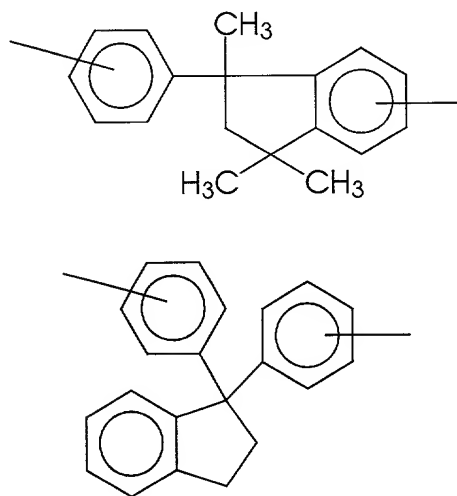


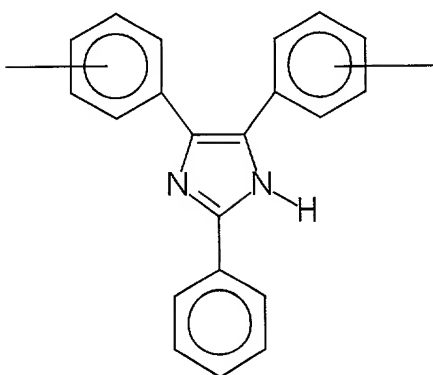
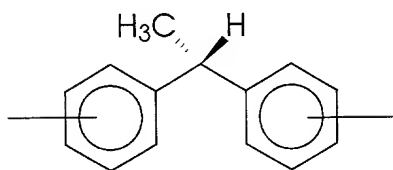
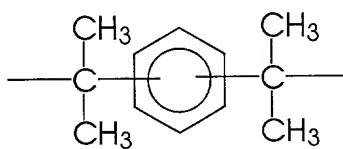
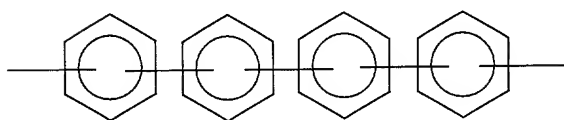
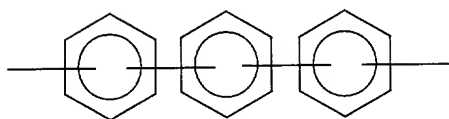
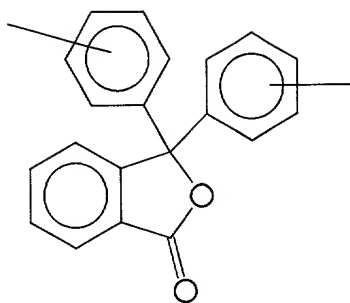
wherein u is an integer of from 1 to about 20,

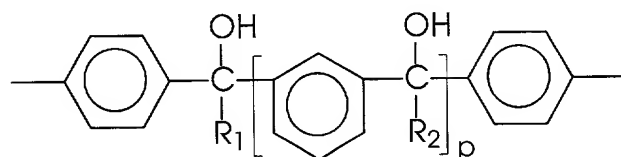
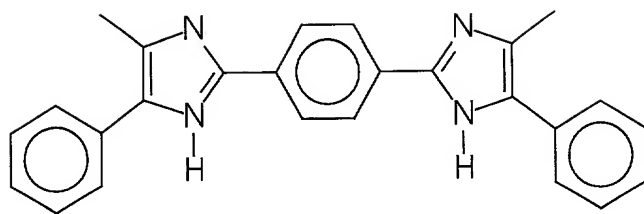




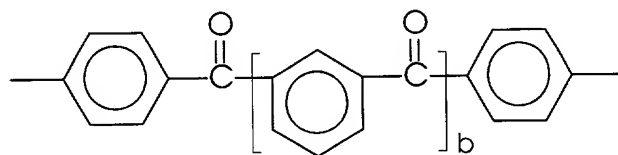
wherein  $w$  is an integer of from 1 to about 20,



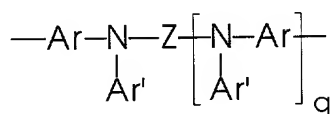




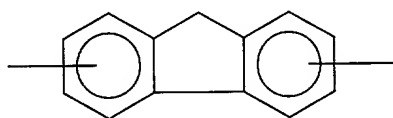
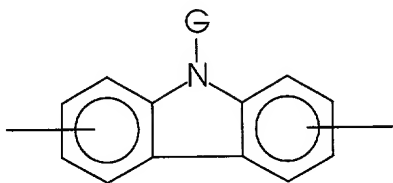
wherein  $R_1$  and  $R_2$  each, independently of the other, are hydrogen atoms, alkyl groups, aryl groups, or mixtures thereof, and  $p$  is an integer of 0 or 1,



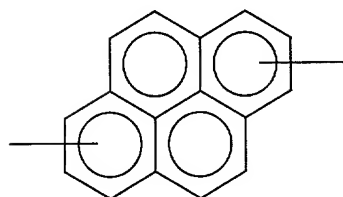
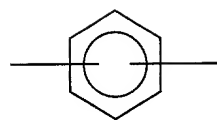
wherein  $b$  is an integer of 0 or 1,



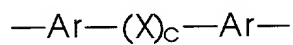
wherein (1)  $Z$  is



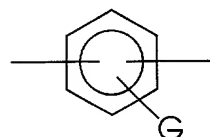
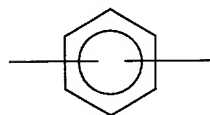




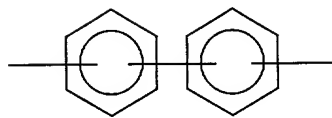
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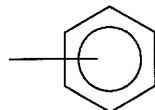
wherein c is 0 or 1; (2) Ar is

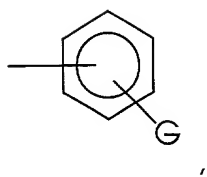


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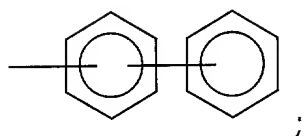


(3) G is an alkyl group selected from alkyl or isoalkyl groups containing from about 2 to about 10 carbon atoms; (4) Ar' is

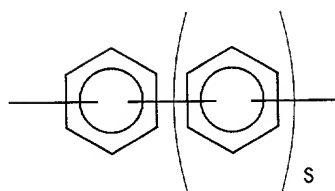
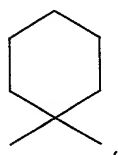
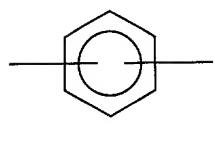
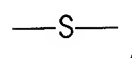
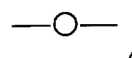
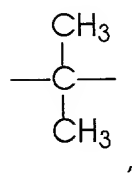
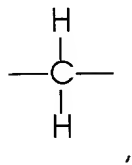




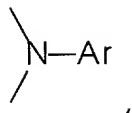
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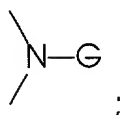
(5) X is



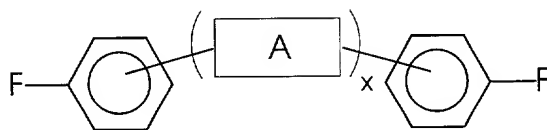
wherein s is 0, 1, or 2,



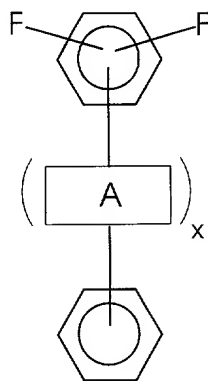
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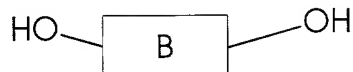
and (6) q is 0 or 1; or mixtures thereof, and n is an integer representing the number of repeating monomer units, said process comprising (A) providing a reaction mixture which comprises (i) a solvent, (ii) a compound of the formula



or



(iii) a compound of the formula



(iv) a compound of the formula

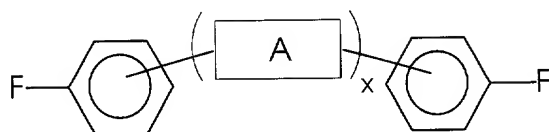


wherein  $a$  is an integer of from 1 to 5,  $R'$  is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, an aryloxy group, an arylalkyloxy group, an alkylaryloxy group, a polyalkyleneoxy group, or a mixture thereof, and (v) a carbonate base; and (B) heating the reaction mixture and removing generated water from the reaction mixture, thereby effecting a polymerization reaction.

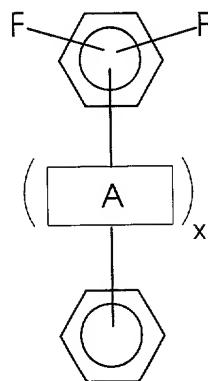
20250101 09:00:00

2. A process according to claim 1 wherein  $R_1$  is a hydrogen atom, an alkyl group with from 1 to about 20 carbon atoms, an aryl group with from 2 to about 14 carbon atoms, an arylalkyl group with from 7 to about 50 carbon atoms, an alkylaryl group with from 7 to about 50 carbon atoms, an alkoxy group with from 1 to about 20 carbon atoms, an aryloxy group with from 6 to about 100 carbon atoms, an arylalkyloxy group with from 7 to about 100 carbon atoms, an alkylaryloxy group with from 7 to about 100 carbon atoms, a polyalkyleneoxy group wherein each repeat alkylene oxide unit, independently of the others in the polyalkyleneoxy group, has from about 2 to about 100 carbon atoms, wherein the polyalkyleneoxy group can contain two or more different kinds of repeat alkylene oxide repeat monomer units, the polyalkyleneoxy group being with from 1 to about 500 repeat alkyleneoxy units, or a mixture thereof.

3. A process according to claim 1 wherein the compound of the formula

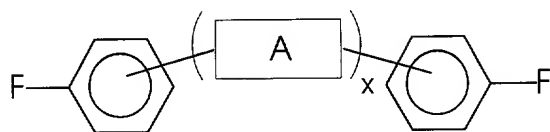


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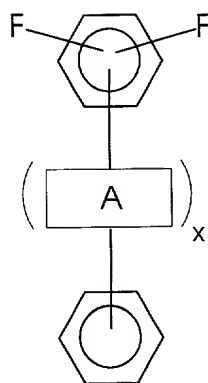


is a difluorobenzophenone.

4. A process according to claim 1 wherein the compound of the formula

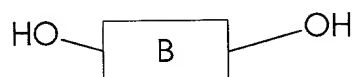


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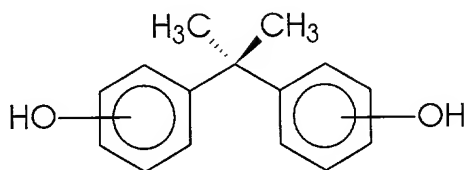


is 4,4'-difluorobenzophenone.

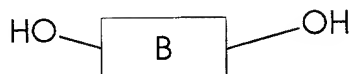
5. A process according to claim 1 wherein the compound of the formula



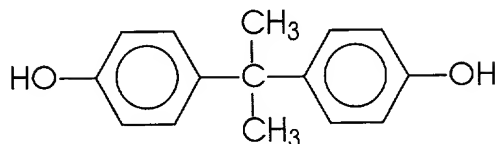
is of the formula



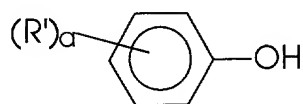
6. A process according to claim 1 wherein the compound of the formula



is of the formula



7. A process according to claim 1 wherein the compound of the formula



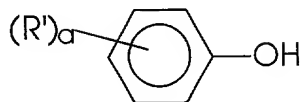
is of the formula



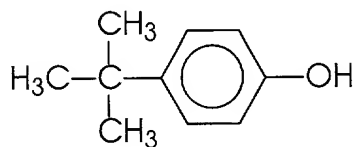
8. A process according to claim 1 wherein R' is t-butyl.



9. A process according to claim 1 wherein the compound of the formula



is of the formula

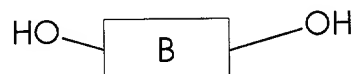


10. A process according to claim 1 wherein the solvent is N,N-dimethylacetamide, sulfolane, dimethyl formamide, dimethyl sulfoxide, N-methyl pyrrolidinone, hexamethylphosphoric triamide, or mixtures thereof.

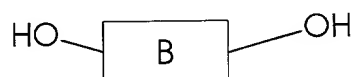
11. A process according to claim 1 wherein the solvent is N,N-dimethylacetamide.

12. A process according to claim 1 wherein the carbonate base is potassium carbonate or cesium carbonate.

13. A process according to claim 1 wherein the carbonate base is present in an amount of at least about 1.05 moles of carbonate base per every one mole of the compound of the formula



and wherein the carbonate base is present in an amount of no more than about 2 moles of carbonate base per every one mole of the compound of the formula



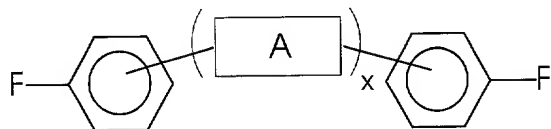
14. A process according to claim 1 wherein the reaction takes place at the reflux temperature of the solvent.

15. A process according to claim 1 wherein the reaction takes place at a temperature of at least about 145°C, and wherein the reaction takes place at a temperature of no more than about 200°C.

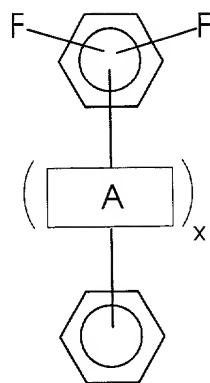
16. A process according to claim 1 wherein the polymer thus formed has a weight average molecular weight of at least about 10,000 Daltons, and wherein the polymer thus formed has a weight average molecular weight of no more than about 20,000 Daltons.

17. A process according to claim 1 wherein the polymer thus formed has a polydispersity of no more than about 2.7.

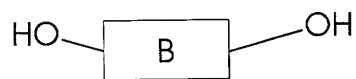
18. A process according to claim 1 wherein the ratio of material of the formula



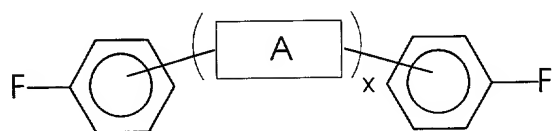
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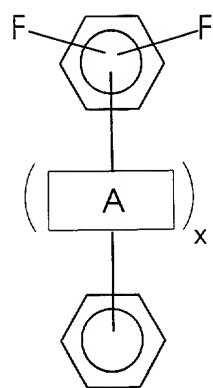
to material of the formula



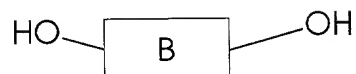
is at least about 1.02 moles of material of the formula



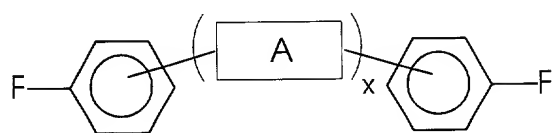
or



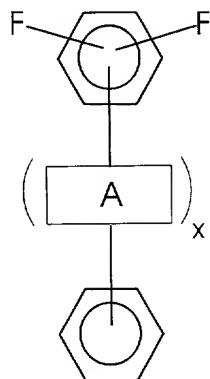
per one mole of material of the formula



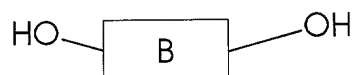
and wherein the ratio of material of the formula



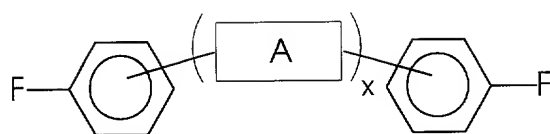
or



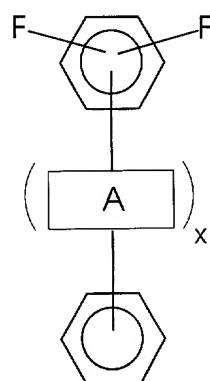
to material of the formula



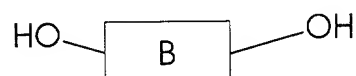
is no more than about 1.15 moles of material of the formula



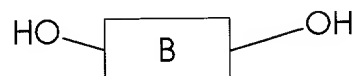
or



per one mole of material of the formula



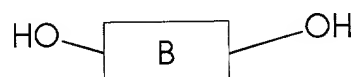
19. A process according to claim 1 wherein the ratio of material of the formula



to material of the formula



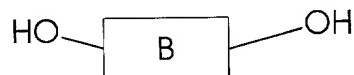
is at least about 2 moles of material of the formula



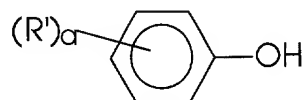
per one mole of material of the formula



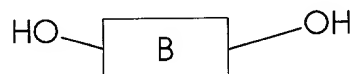
and wherein the ratio of material of the formula



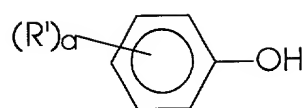
to material of the formula



is no more than about 10 moles of material of the formula

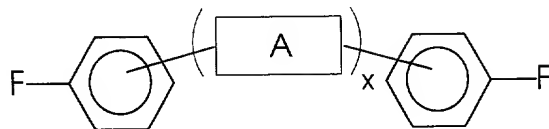


per one mole of material of the formula



20040350 010302

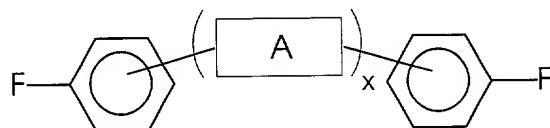
20. A process according to claim 1 wherein the ratio of material of the formula



to material of the formula



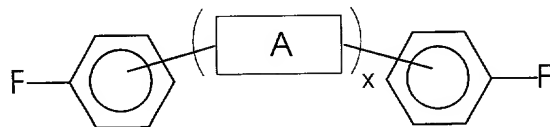
is at least about 2 moles of material of the formula



per one mole of material of the formula



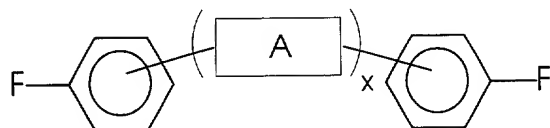
and wherein the ratio of material of the formula



to material of the formula

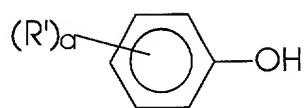


is no more than about 10 moles of material of the formula

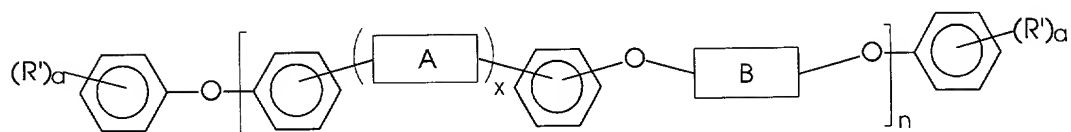


per one mole of material of the formula

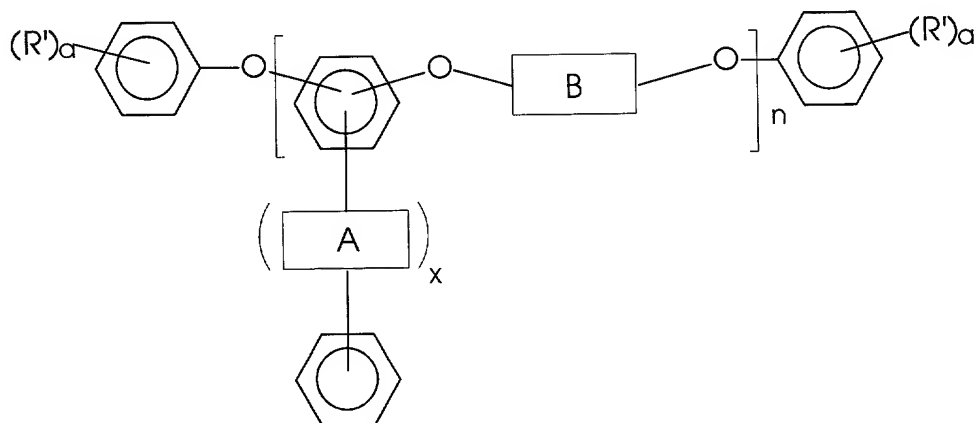




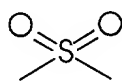
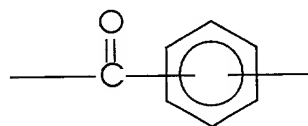
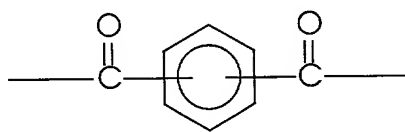
21. A process for preparing a polymer of the formula

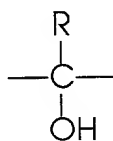
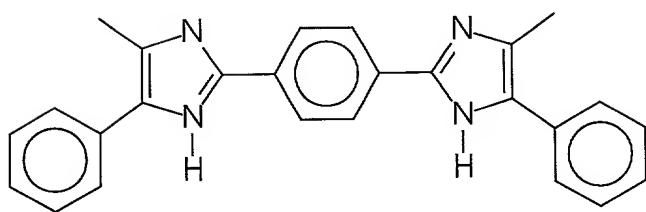
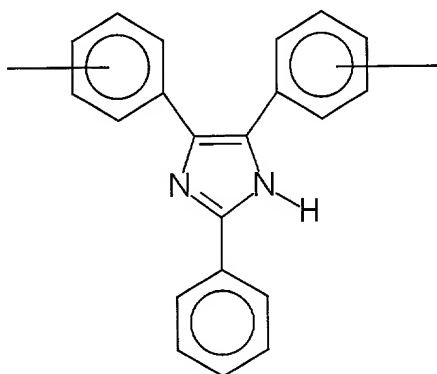
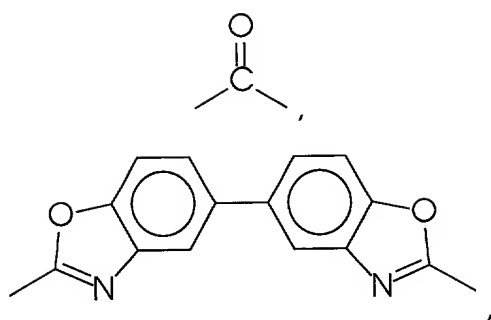


or

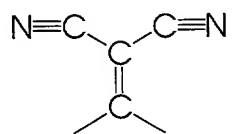


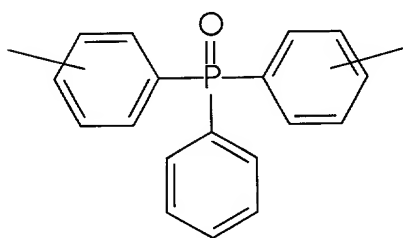
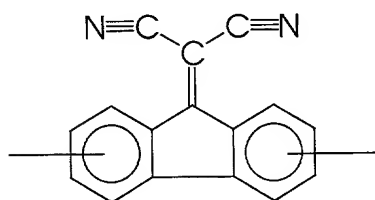
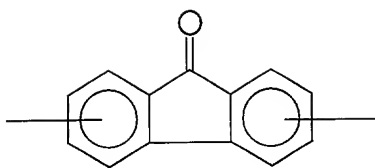
wherein x is an integer of 0 or 1, a is an integer of from 1 to 5, R' is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, an aryloxy group, an arylalkyloxy group, an alkylaryloxy group, a polyalkyleneoxy group, or a mixture thereof, A is



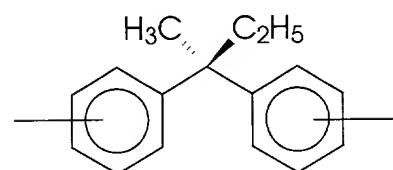
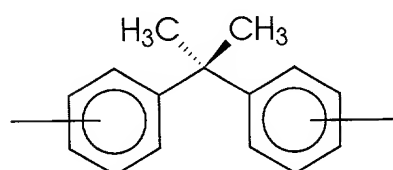
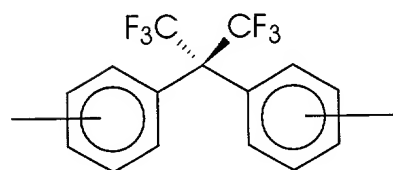


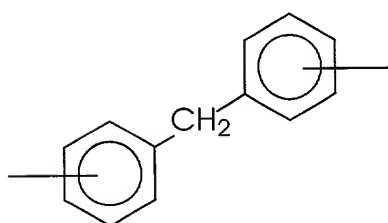
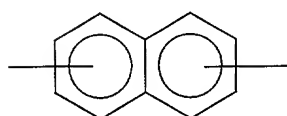
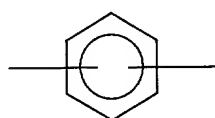
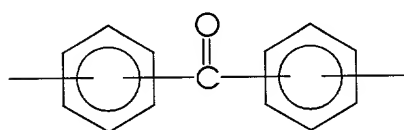
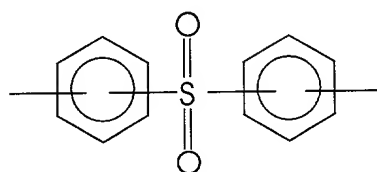
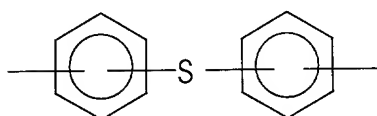
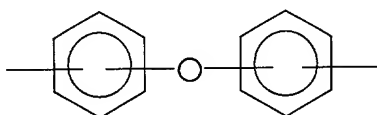
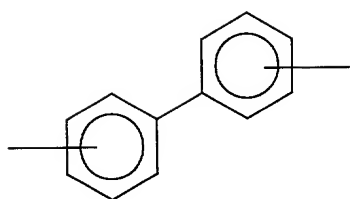
wherein R is a hydrogen atom, an alkyl group, an aryl group, or mixtures thereof,

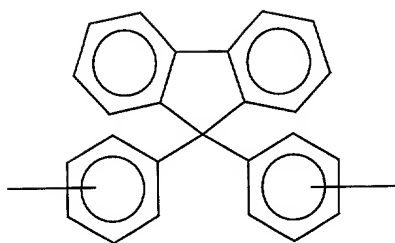




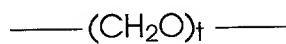
or mixtures thereof, B is



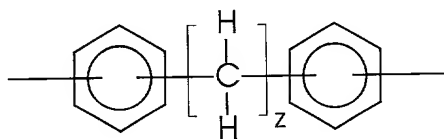




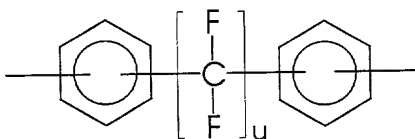
wherein v is an integer of from 1 to about 20,



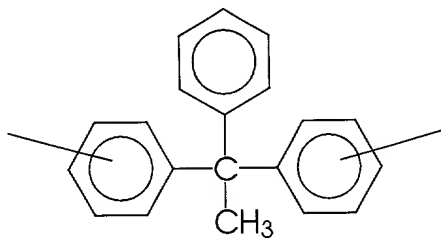
wherein t is an integer of from 1 to about 20,

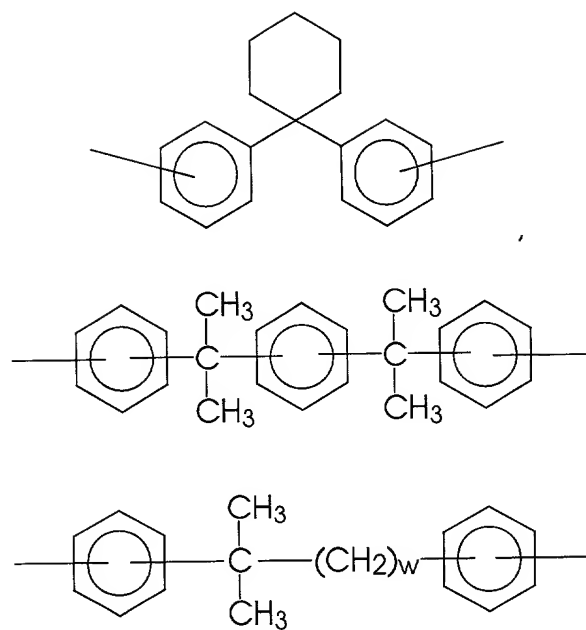


wherein z is an integer of from 2 to about 20,

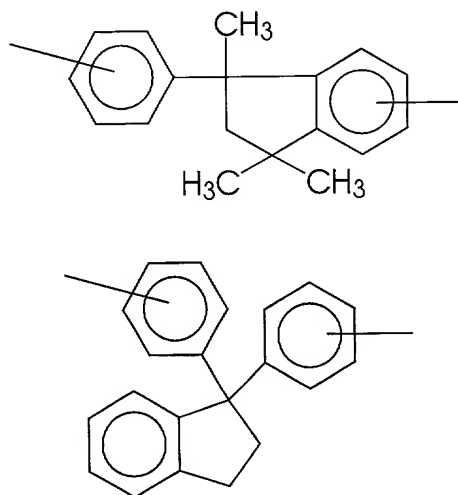


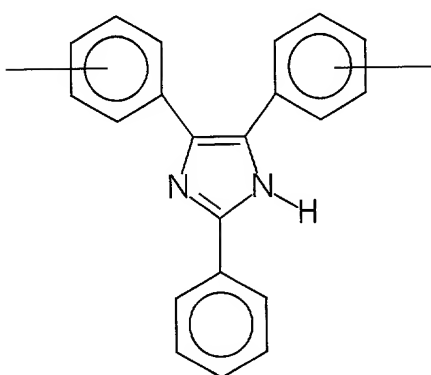
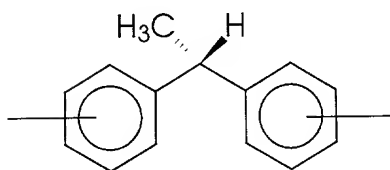
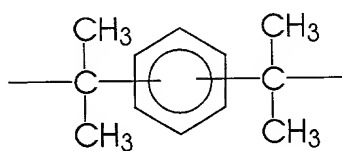
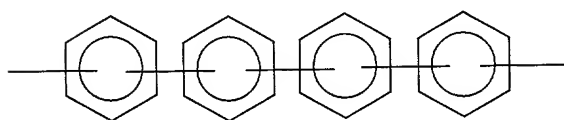
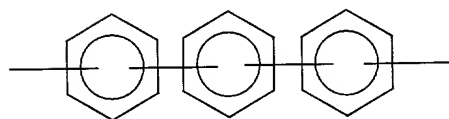
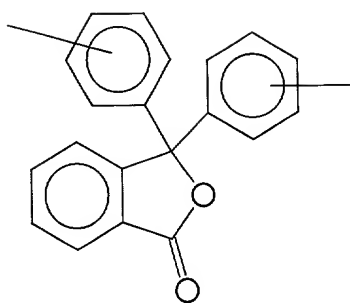
wherein u is an integer of from 1 to about 20,



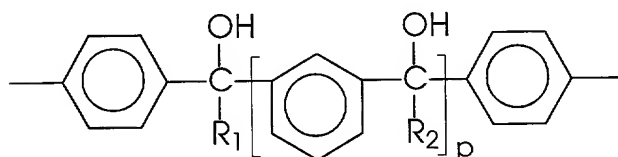
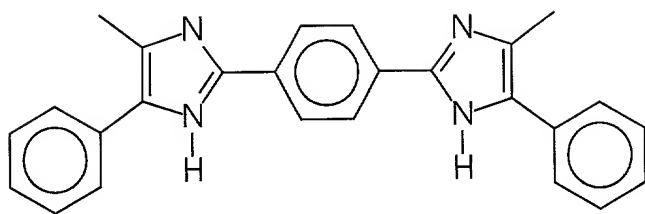


wherein  $w$  is an integer of from 1 to about 20,

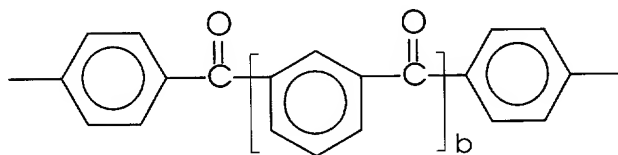




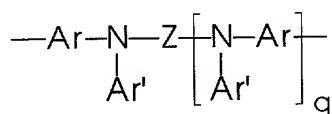




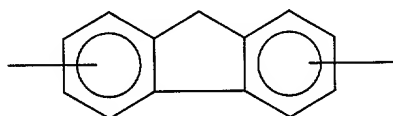
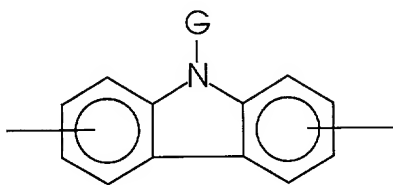
wherein  $R_1$  and  $R_2$  each, independently of the other, are hydrogen atoms, alkyl groups, aryl groups, or mixtures thereof, and  $p$  is an integer of 0 or 1,

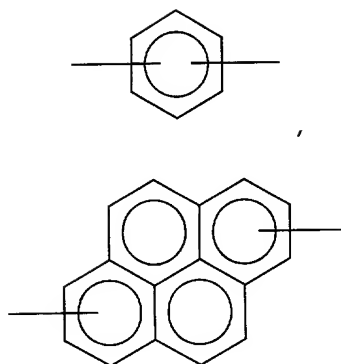


wherein  $b$  is an integer of 0 or 1,

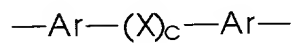


wherein (1)  $Z$  is

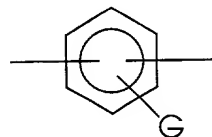
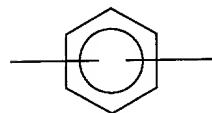




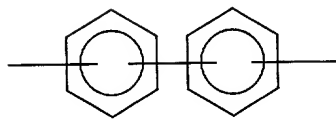
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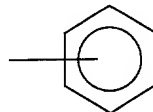
wherein c is 0 or 1; (2) Ar is

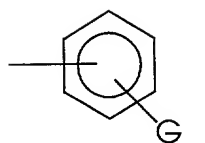


or

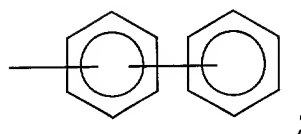


(3) G is an alkyl group selected from alkyl or isoalkyl groups containing from about 2 to about 10 carbon atoms; (4) Ar' is

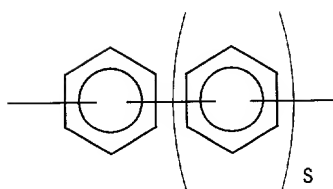
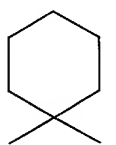
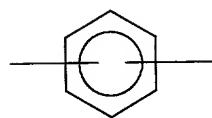
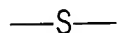
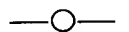
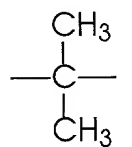
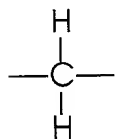




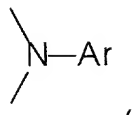
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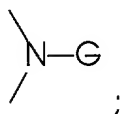
(5) X is



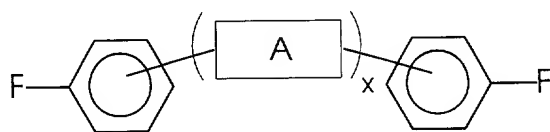
wherein s is 0, 1, or 2,



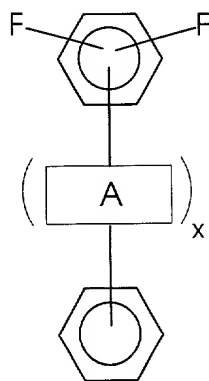
or



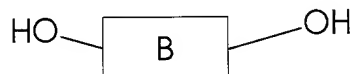
and (6) q is 0 or 1; or mixtures thereof, and n is an integer representing the number of repeating monomer units, said process comprising (A) providing a reaction mixture which comprises (i) a solvent, (ii) a compound of the formula



or



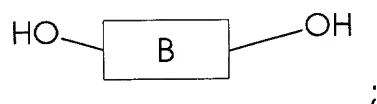
(iii) a compound of the formula



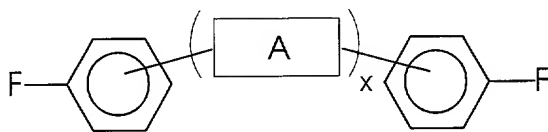
(iv) a compound of the formula



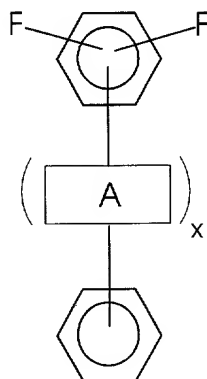
wherein a is an integer of from 1 to 5, R' is a hydrogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, an aryloxy group, an arylalkyloxy group, an alkylaryloxy group, a polyalkyleneoxy group, or a mixture thereof, and (v) a carbonate base; and (B) heating the reaction mixture and removing generated water from the reaction mixture, thereby effecting a polymerization reaction; wherein the carbonate base is present in an amount of from about 1.05 to about 2 moles of carbonate base per every one mole of the compound of the formula



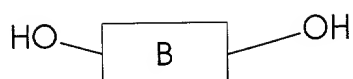
wherein the ratio of material of the formula



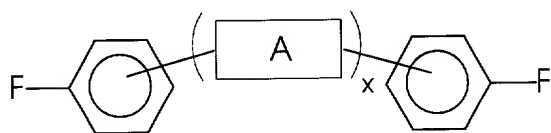
or



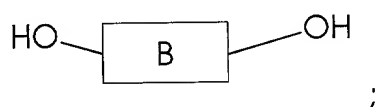
to material of the formula



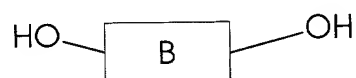
is from about 1.02 to about 1.15 moles of material of the formula



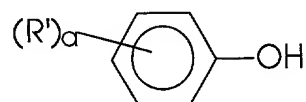
per one mole of material of the formula



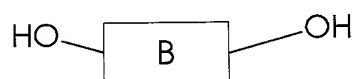
wherein the ratio of material of the formula



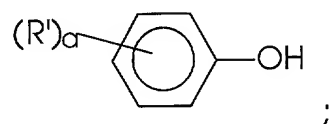
to material of the formula



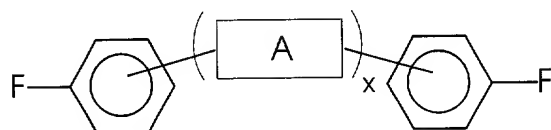
is from about 2 to about 10 moles of material of the formula



per one mole of material of the formula



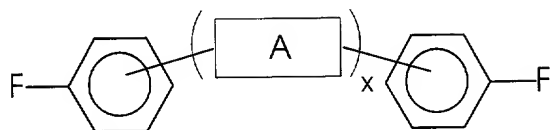
and wherein the ratio of material of the formula



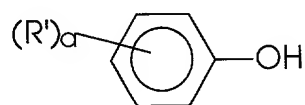
to material of the formula



is from about 2 to about 10 moles of material of the formula

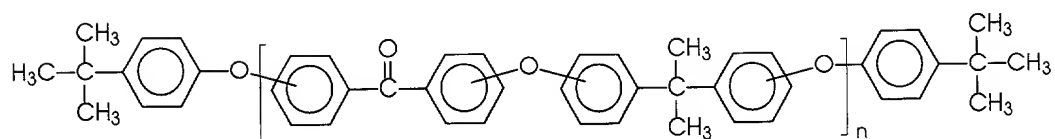


per one mole of material of the formula

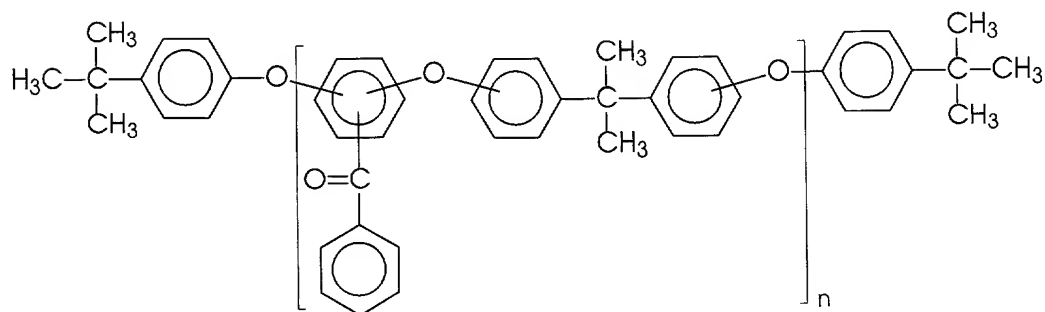


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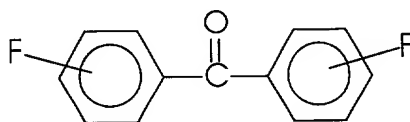
22. A process for preparing a polymer of the formula



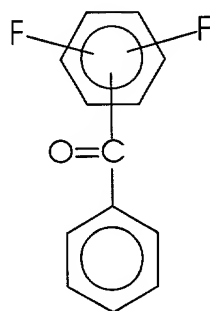
or



said process comprising (A) providing a reaction mixture which comprises (i) a N,N-dimethylacetamide solvent, (ii) a compound of the formula

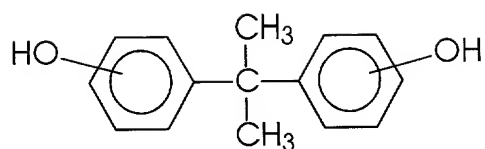


or

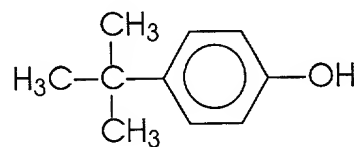


(iii) a compound of the formula





(iv) a compound of the formula



and (v) a carbonate base which is potassium carbonate or cerium carbonate; and (B) heating the reaction mixture to reflux and removing generated water from the reaction mixture, thereby effecting a polymerization reaction.